

Figure 1:

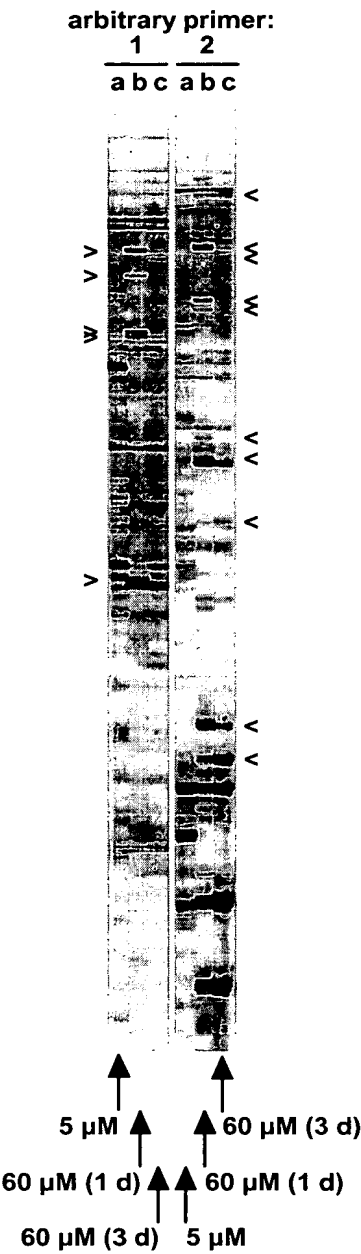


Figure 2:

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5  >carbo#SD long
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SKSWDKPVIGTVKDTGYLKFAPESAAEKCTLHTYNGEYILDHFFHYHWGKKDGEAEHFDGKQYDIE
FHFVHKKVGLTDPDARDAFAVLGVFGKADPRLKINGIWELLSPSTVLTVDSTRNVADVVP SKLLPSAR
10 DYFHYEGSLTTPTYGEVVHWFVLNEPIAVPSEYLSALRQMADKEGTVIDSNYRELQEVHNRVPVQRFK
SDEQGRGEFDDISKNEIVEDLSKLSGNFIRELVRKIYW

15

GAATTCGGCACGAGGGACAACCTTTGCATAACTTTTACTGTCCATGTTTAAACGTTTAGATCTAG 63
TACTAGTAGTCTACAAGAACAACCTGTCAACAACCTGTCAGATTATGTGTATAAACCAAGATGTC 126
M S 2
20 TGCAATTCTTAAGAGAAAACGTACCTATCCAAAGAGTCGGTCTCCCACTGACCTCCTATGTCAG 189
A I L K R N V P I Q R V G L P L T S Y V S 23
TAGATGGGCTTCTGCTCTGCCCACCAGGACCCATCCTTTTTACAAGTTGGTTGATGACAGTAC 252
R W A S A L P T R T H P F Y K L V D D S T 44
CACCCCAAGTGACAAGGTCTACTCTCTCAGTGCTCATATGGTTGACACCTTGCTAGATGAGAA 315
25 T P V T R S T L L S A H M V D T L L D E N 65
CCAGCAGAGCAGACATGAAAACCAACACACAGACACGTCTTACAAAATGTACCAGGGATTAAA 378
Q Q S R H E N Q H T D T S Y K M Y Q G L K 86
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F V V K T L F T P S K C H R H F S T S A H 107
30 TTTGTCTGCCATGGGTCGACATCAATCCCCCATCAATATAATCACCTCCAGTACGACCAAAG 504
L S A M G R H Q S P I N I I T S S T T K G 128
ACCGTCATTGAAACCGTTAAAAATTTAGCAAGAGTTGGGACAAGCCAGTAATCGGCACCGTCAA 567
P S L K P L K F S K S W D K P V I G T V K 149
AGATACTGGCTATTATCTTAAATTTGCACCAGAATCTGCAGCAGAGAAGTGCACATTGCATAC 630
35 D T G Y Y L K F A P E S A A E K C T L H T 170
GTACAATGGTGAATATATCTTAGATCATTTCATTATCACTGGGGGAAGAAGGATGGGGGAAG 693
Y N G E Y I L D H F H Y H W G K K D G E G 191
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A E H F I D G K Q Y D I E F H F V H K K V 212
40 TGGGTTGACTGATCCAGATGCTAGAGACGCTTTTGCTGTTTTGGGCGTTTTTGAAAGGCCGA 819
G L T D P D A R D A F A V L G V F G K A D 233
CCCTCGTTTGAAGATCAATGGAATCTGGGAGCTACTCTCACCGTCAACTGTCCTGACTGTCGA 882
P R L K I N G I W E L L S P S T V L T V D 254
CTCAACACGAAACGTCGCTGATGTTGTTCCCTCTAAGCTTCTCCCAAGTGCCAGAGACTATTT 945
45 S T R N V A D V V P S K L L P S A R D Y F 275
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H Y E G S L T T P T Y G E V V H W F V L N 296
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E P I A V P S E Y L S A L R Q M Q A D K E 317
50 AGGTACTGTGATTGACTCAAACCTATCGAGAGCTTCAAGAAGTCCACAATCGACCTGTGCAACG 1134
G T V I D S N Y R E L Q E V H N R P V Q R 338
ATTTAAGAGTGATGAGCAAGGGAGAGGAGAATTTGACGATATTTCTAAGAATGAGGACATTGT 1197
F K S D E Q G R G E F D D I S K N E D I V 359
GGAGGACTTGTCTAAATGTCTGCTAACTTTATTAGAGAGCTGGTCAGGAAGATATATTGGTG 1260
55 E D L S K L S G N F I R E L V R K I Y W 379
ACCTTTTTCTACACTTGTTAGAGTTTTAGGCCAGAATACATTTTCATCATTTGGACTGTTATTT 1323
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Figure 3:

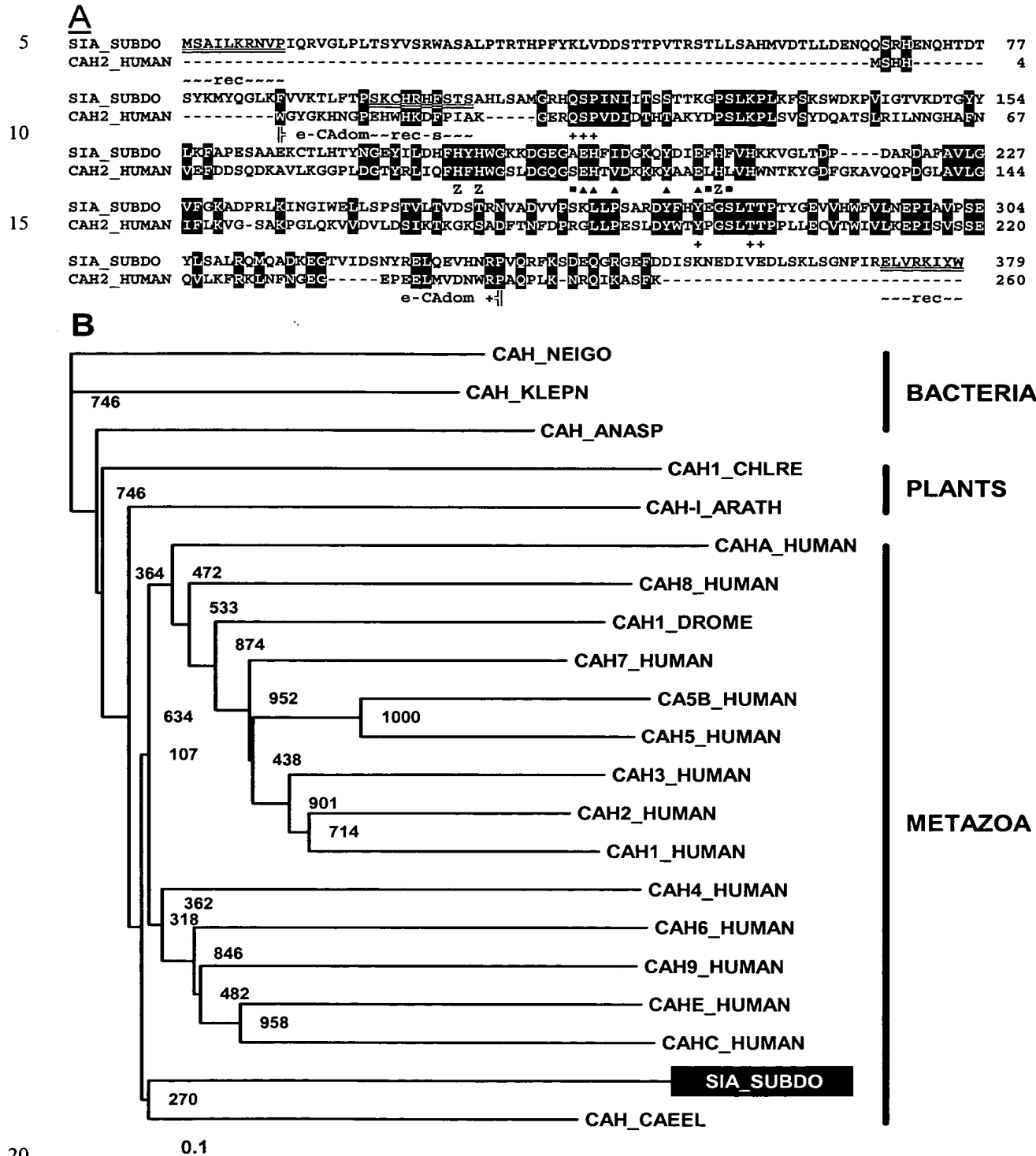


Figure 4:

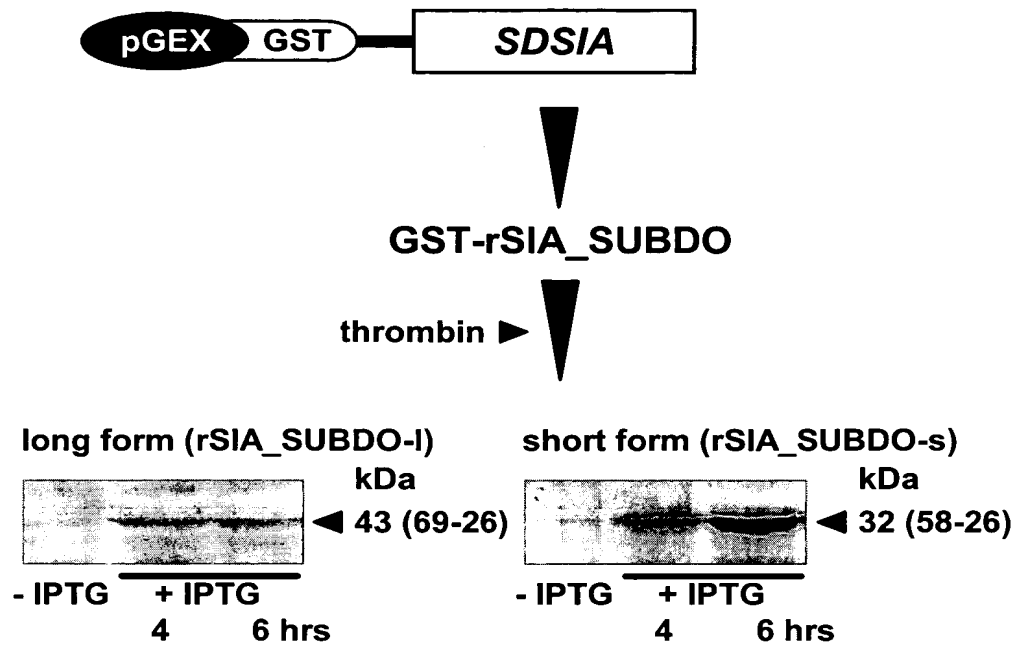


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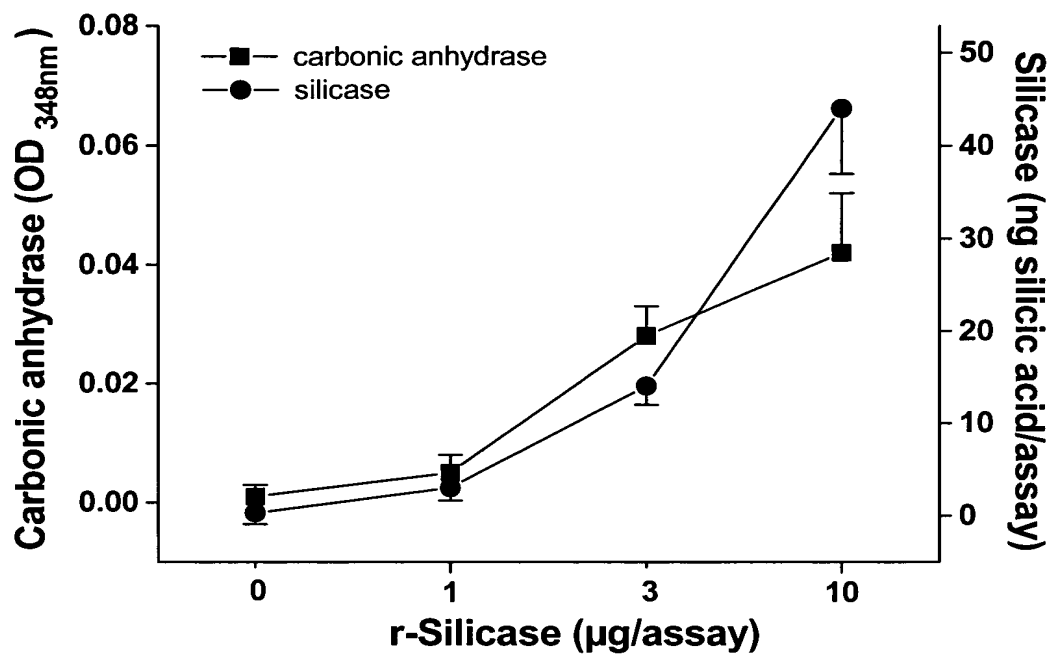


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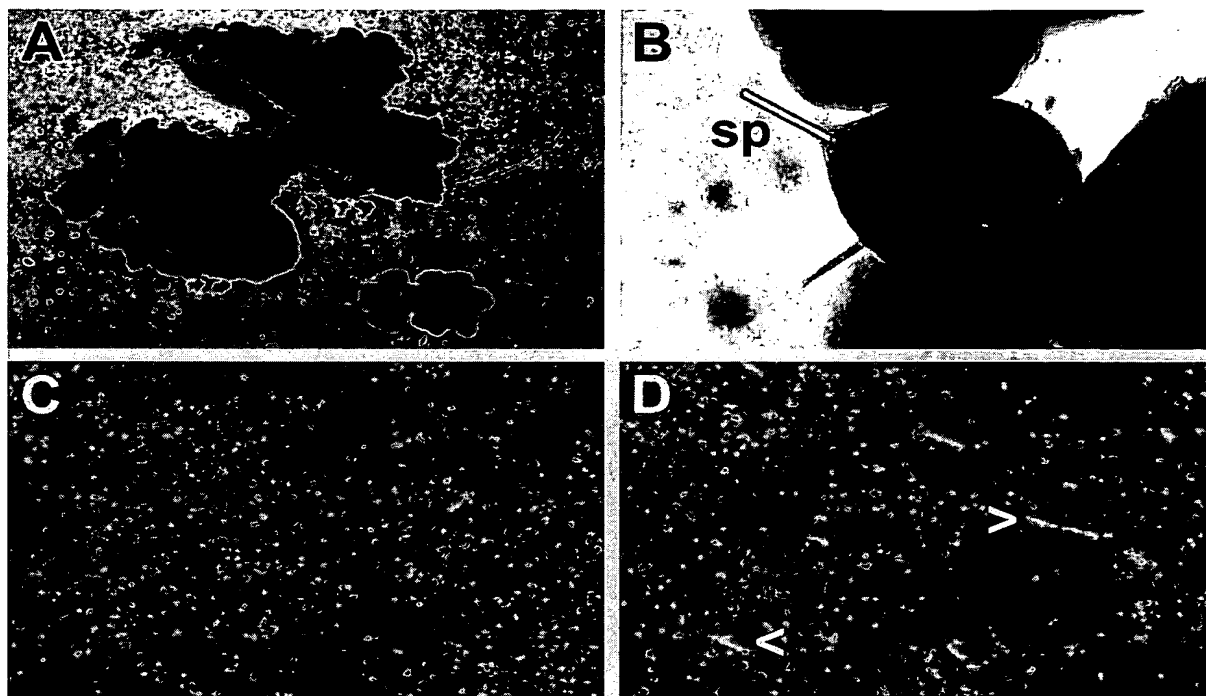


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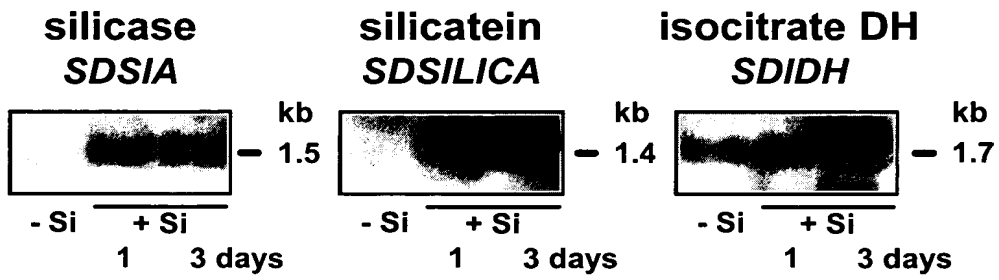
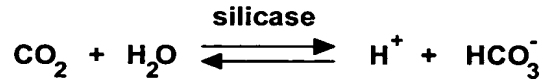


Figure 8:

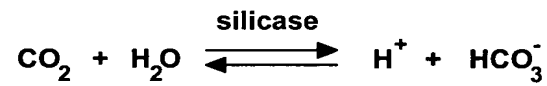
[1] Reaction of silicase [hydration of CO₂]



Effect on pH milieu
high metabolic activity



oxidative respiration: CO₂ → release into the extracellular space



modulation of pH

[2] Reaction of silicase [ester splitting]

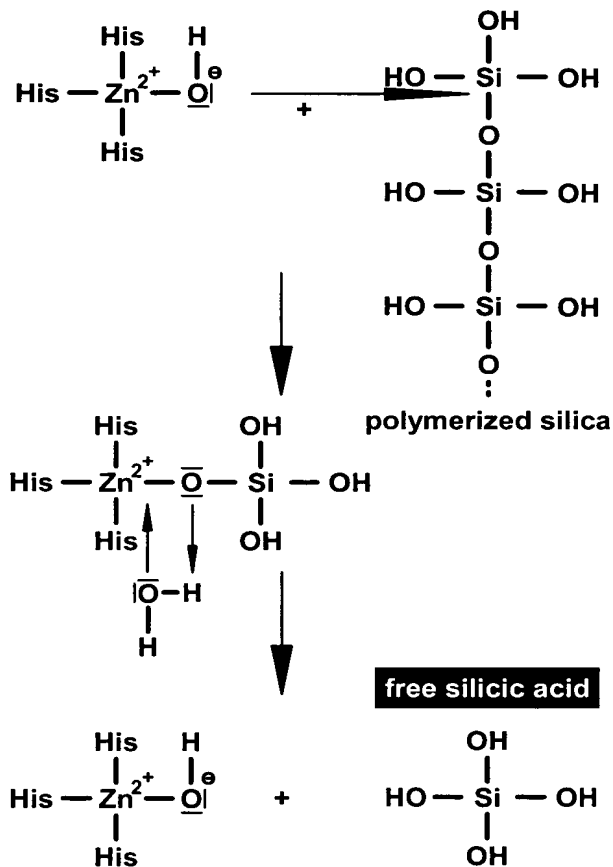
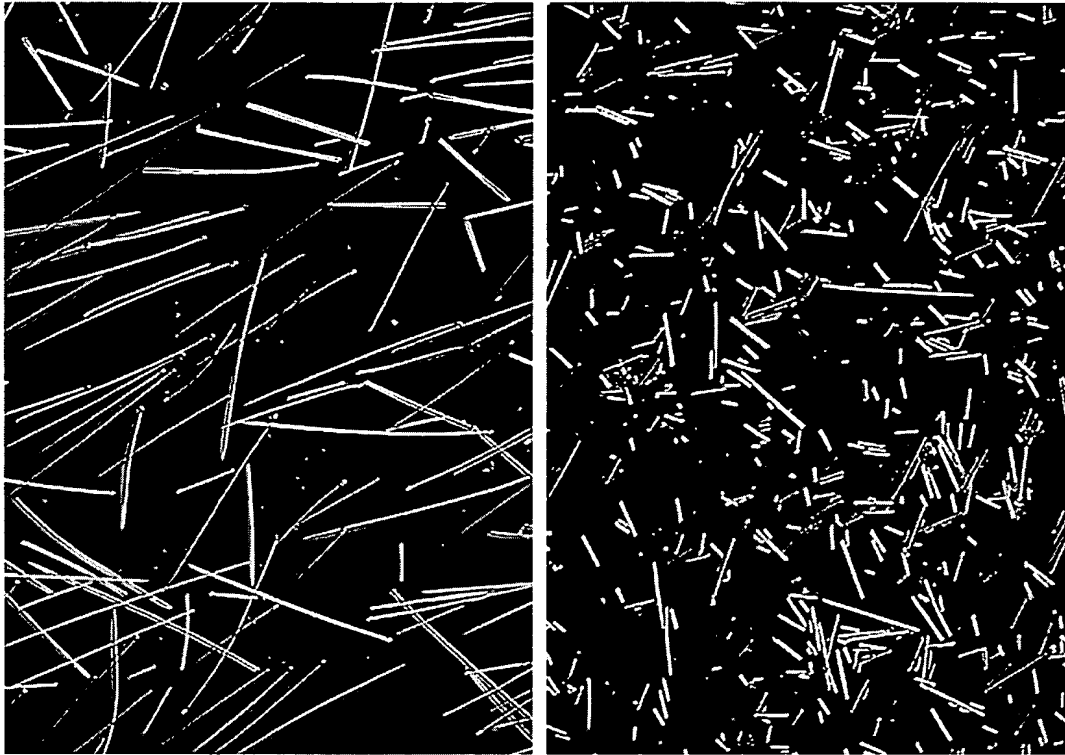


Figure 9:



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